

TECHNICAL REVIEW DOCUMENT
For
REOPENING / MODIFICATION TO OPERATING PERMIT 97OPWE180

Public Service Company – Ft. St. Vrain Station
Weld County
Source ID 1230023

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Revised April 4, May 15 and July 24, 2008

I. Purpose:

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the reopening and modification of the Operating Permit for the Ft. St. Vrain Station. The current Operating Permit for this facility was issued on July 1, 2005 and expires on July 1, 2010. During processing of the current Title V permit, a petition was filed requesting that EPA object to the issuance of the renewal permit for this facility. On February 5, 2007, EPA responded to that petition, partially granting and denying the petition to object to the renewal permit. In their response to the petition EPA indicated that the Division must revise the permit and incorporate the provisions of the VOC correlation for Turbine 4 into the permit. As a result of the petition response, Public Service Company (PSCo), submitted a minor modification application on February 22, 2007 to incorporate the VOC correlation for Turbine 4, as well as the VOC correlations for Turbines 2 and 3 into the permit. In a January 9, 2008 letter, EPA indicated that the Division would have to reopen the permit for Ft. St. Vrain in order to correct deficiencies in the permit. These deficiencies included addressing the VOC correlation for Turbine 4 in the permit and correcting the NO_x BACT limit for Turbine 4. The provisions to include the VOC correlation and correct the NO_x BACT limit for Turbine 4 are subject to reopening provisions, which require 30-day public comment and a 45-day EPA review. In accordance with the requirements in Colorado Regulation No. 3, Part C, Section XIII.A.6, only those provisions for which there is cause to reopen are subject to the reopening procedures. Therefore, only the provisions that are specifically identified as part of the reopening are subject to public comment.

This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on PSCo's request for modification submitted on February 22, 2007 and the EPA's January 9, 2008 letter requiring reopening, comments on the draft permit and technical review document submitted on May 2 and July 20, 2008, previous inspection reports and various e-mail correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating

Permit may be found in the Division files as well as on the Division website at <http://www.cdphe.state.co.us/ap/Titlev.html>. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Permit Modification Request/Modification Type

The source requested that the permit be revised to include the VOC correlations for all turbines into the Title V permit. The permit already specifies that compliance with the VOC limitations (both the short-term BACT limit and the annual limit) shall be monitored using the VOC correlation that has been approved by the Division and programmed into the data acquisition and handling system (DAHS). The modification will merely indicate the equations behind the correlation.

Colorado Regulation No. 3, Part C, Section X.A identifies those modifications that can be processed under the minor permit modification procedures. Specifically, minor permit modifications “are not otherwise required by the Division to be processed as a significant modification” (Colorado Regulation No. 3, Part C, Section X.A.6). The Division requires that “every significant change in existing monitoring permit terms or conditions” be processed as a significant modification (Colorado Regulation No. 3, Part C, Section I.A.7.f). As previously indicated, the permit already requires the use of the Division approved correlation, the purpose of the modification is to provide more specific information on the equations that are the basis of the correlation.

EPA submitted a letter dated January 9, 2008 to the Division and in that letter EPA indicated that portions of the Ft. St. Vrain permit must be reopened and revised in order to assure compliance with the applicable requirements. Reopenings are subject to the same procedures for initial or renewal permit issuance, including a 30-day public comment period and a 45-day EPA review. However, only those portions of the permit that are subject to reopening are subject to public comment.

III. Modeling

The requested revisions do not result in the change in any actual and/or permitted emission limitations; therefore, no modeling is required.

IV. Discussion of Modifications Made

Source Requested Modifications

The Division addressed the source's requested modifications as follows:

The Division included the VOC correlations for Turbines 2 and 3 into the permit in Appendix H. A statement was added in Section II, Conditions 1.5.1 and 1.5.2 indicating that the correlation equations are included in Appendix H of the permit.

The source indicated in their May 2, 2008 comments on the draft permit that tank T-7801 and the diesel fuel tank located by the sewage lagoons have both been closed and should be removed from the insignificant activity list in Appendix A. The Division removed the tanks from the list as requested.

The source submitted additional comments on the draft permit on July 20, 2008 via e-mail. While these comments were received after the public comment period and after the Division submitted the permit to EPA for their 45-day review, since the revisions requested would qualify as an administrative amendment, which does not require public comment or EPA review, the Division is making these revisions to the permit at this time. The changes are as follows:

Section II, Condition 1.2.1

- The phrase "by the turbine operator" was removed from the definition of shutdown, since there may be situations when the signal to shutdown may not be initiated by the turbine operator.

Appendix A – Insignificant Activity List

- Revised descriptions for the following:
 - Removed the reference to the auxiliary boiler for tank T-8403
 - Corrected the size for tank T-5401X (should be 6,000 gallons, not 4,700 gallons)
 - Corrected the size for one of the sulfuric acid storage tanks (should be 20,000 gallons, not 10,000 gallons)
 - Revised the description of the turbine lube oil tanks to indicate that there are three (3) turbine lube oil tanks.
- Removed the PCL-711, 2,000 gallon tank from the list
- Added a 5,000 gallon bleach storage tank and a 5,000 gallon salt storage tank.

EPA Mandated Reopening

VOC Correlation for Turbine 4

Section II, Condition 2.3 was revised to remove the statement indicating that the VOC correlation has not been approved by the Division. In addition, a statement has been added indicating that the correlation has been approved and that the correlation equations can be found in Appendix H. The statement regarding the approval references both the date of the approval and the Division's approval letter.

The Division documented the approval of the VOC correlation for Turbine 4 in a letter to the source, dated March 26, 2008.

NO_x BACT limit for Turbine 4

The Division revised the language in Condition 2.5.1 to remove the paragraph regarding collecting and reporting emission data that are not used to assess compliance with the NO_x BACT limits. In addition, the Division added language indicating that the 24-hour averaging time for the NO_x limit was rolling and that hours used in the average did not have to be consecutive (i.e. the 24-hour rolling average would resume after the unit is shutdown and restarted and/or between switches in operating mods (simple cycle to combined cycle)).

Other Modifications

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the Ft. St. Vrain Station Operating Permit with the source's requested modifications. The Division considers that these changes would qualify as minor modifications and has included these changes as part of the minor modification request submitted by PSCo on February 22, 2007. As such, these changes are not subject to the reopening provisions and are not subject to public comment. These changes are as follows:

Page following cover page

- Changed the Responsible Official

Section I – General Activities and Summary

- Revised the description under Condition 1.1 to address the attainment status of the area in which the facility is located.
- Revised the language in Condition 1.4 to specify that only the last paragraph of Section V, Condition 3.g was state-only enforceable and to include Section V, Condition 3.d (affirmative defense provisions for excess emissions during malfunctions), as a state-only requirement. Note that Section V, Condition 3.d is state-only until approved by EPA in the SIP.
- Made minor revisions to the language in Condition 3.1 to be more consistent with other permits and to correct citations that changed based on revisions to Reg 3. In addition, revised this condition to address the attainment status of the area in which the facility is located.
- Added the 500 gallon gasoline storage tank to the Table in Condition 6.1.

Section II.1 and 2 – Turbines and Duct Burners

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only pipeline quality natural gas is used as fuel for permit conditions that rely on fuel restriction for the compliance demonstration.
- The numbering convention for NSPS Da was revised (e.g., 60.42a(a)(1) revised to 60.42Da(a)(1)), therefore, these changes have been made in the permit, as applicable.
- The PM emission limitation for the duct burners included in Condition 1.6.3 is from NSPS Da. The language in NSPS Da specifically states that the particulate matter limits don't apply during periods of startup, shutdown and malfunction. Therefore, the Division added this language to Condition 1.6.3.

Section II.3 – Auxiliary Boiler

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel for permit conditions that rely on fuel restriction for the compliance demonstration.

Section II.6 – "New" Section for gasoline dispensing

Previously, a 500 gallon gasoline storage tank was included in the list of insignificant activities and considered exempt in accordance with Colorado Regulation No. 3, Part C, Section II.C.e.3.nnn (fuel storage and dispensing equipment in ozone attainment areas with throughput less than 400 gal/day, averaged over 30 days). The area in which the

source is located is no longer attainment for ozone, therefore, this emission unit could not be considered insignificant unless actual VOC emissions were less than 1 ton/yr. The source indicated in their May 2, 2008 comments on the draft permit that actual VOC emissions were less than 1 ton/yr. However, under the “catch-all” provisions in Regulation No. 3, Part C, Section II.E, sources that are subject to any federal or state applicable requirement, such as National Emission Standards for Hazardous Air Pollutants (NESHAPs), may not be considered insignificant activities. EPA promulgated National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities in 40 CFR Part 63 Subpart CCCCCC which were published in the federal register on January 10, 2008 and apply to gasoline dispensing facilities (GDF) located at area source (minor sources for HAPS). This facility is a minor source for HAP emissions. As indicated in the technical review document for the renewal permit (issued July 1, 2005), total HAP emissions are 17.48 tpy, with the highest single HAP (formaldehyde) at 6.36 tpy. Therefore, the provisions for GDFs at area sources apply to the gasoline tank at this facility.

Since the tank was previously considered insignificant due to throughput less than 400 gallons per day, the Division considers that the monthly throughput for this unit would be less than 10,000 gallons and therefore, the tank would only be subject to work practice standards. In addition, since this is an existing tank, the permittee must comply with the requirements in 40 CFR Part 63 Subpart CCCCCC no later than January 10, 2011. Since the Division is modifying the permit at this time, we are including the appropriate requirements for the GDF in the permit.

Colorado Regulation No. 3, Part C, Section I.A.7.b specifies that “any change that is considered a modification under Title I of the Federal Act” be processed as a significant permit modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(ii)). Appendix F of Regulation 3 describes more specifically what constitutes a modification under Title I of the Federal Act and Appendix F (Section I.L, revisions adopted July 15, 1993, Subsection I.G for modifications) indicates that a modification which triggers 112 requirements (e.g. NESHAP requirements, such maximum achievable control technology (MACT) requirements for major sources and generally achievable control technology (GACT) requirements for area sources) is considered a Title I modification. Since the GDF has a monthly throughput less than 10,000 gallons, the GDF is subject to work practice requirements. In accordance with Division policy (PS Memo 99-06, revised February 27, 2008) the Division considers that public comment would not be required for area sources that are subject to non-substantive MACT requirements, such as recordkeeping or work practice requirements. Therefore, since public comment would not be required if this GDF were processed as a construction permit and because the GACT requirements are not substantive (i.e. not an emission limitation, control requirement or design restriction), the Division considers that incorporating these provisions into the Title V permit qualifies as a minor modification.

Note that since the provisions in 40 CFR Part 63 Subpart CCCCCC have not been adopted into Colorado Regulation No. 8, Part E, these requirements are not state-enforceable and the “catch-all” provisions for APEN reporting and minor source

permitting do not apply. Therefore, since actual VOC emissions from this tank are below 1 ton/yr, the tank is exempt from the APEN reporting and minor source permitting requirements. In the event that the Division adopts these requirements this GDF will be subject to the APEN reporting and minor source permitting requirements and the requirements in 40 CFR Part 63 Subpart CCCCCC will be state-enforceable.

Paint Stripping and Miscellaneous Surface Coating at Area Sources (40 CFR Part 63 Subpart HHHHHH)

The final rules for paint stripping and miscellaneous surface coating were published in the federal register on January 9, 2008 and apply to area sources that perform paint stripping operations using methylene chloride, spray application of coatings to motor vehicles and mobile equipment and spray application of coatings that contain the target HAPS (chromium, lead, manganese, nickel or cadmium). As indicated in 40 CFR Part 63 § 63.11170(a)(2) and (3), spray applications (to motor vehicles and using coatings that contain the target HAPS) that meet the definition of facility maintenance are not subject to the requirements in this rule. The Division considers that any spray coatings of motor vehicles and mobile equipment and spray application of coatings that contain the target HAP at this facility would meet the definition of facility maintenance. The source indicated in their May 2, 2008 comments on the draft permit that none of the paint stripping chemicals used at the facility contain methylene chloride; therefore, the provisions in 40 CFR Part 63 Subpart HHHHHH do not apply.

Section III – Acid Rain Requirements

- Revised the designated representative.
- The renewal permit was issued July 1, 2005 and extends through July 1, 2010; however, the tables in Section 2 do not reflect this (tables list 2004 through 2009). Therefore, the tables have been revised to list 2005 through 2010.
- Removed the requirement to submit the annual compliance certification in Section 4 (Reporting Requirements). As a result of revisions to the Acid Rain Program made with the Clean Air Interstate Rule (final published in the federal register on May 12, 2005), annual compliance certifications are no longer required, beginning in 2006.

Section IV – Permit Shield

- The justification for the shield (Section 1) for the Reg 7 requirements (except for Section V, Paragraphs VI.B.1 and 2 and Subsection VII.c) was revised. These requirements do not currently apply since they only apply to the Denver 1-hr ozone attainment maintenance area and any non-attainment area for the 1-hr ozone standard. The area in which the facility is located is non-attainment for the 8-hr ozone standard.

Section V – General Conditions

- Removed the statement in Condition 3.g (affirmative defense provisions for excess emissions during startup and shutdown) addressing EPA approval and state-only applicability. The EPA has approved the affirmative defense provisions, with one exception and the exception, which is state-only enforceable is identified in Section I, Condition 1.4.
- The upset requirements in the Common Provisions Regulation (general condition 3.d) were revised December 15, 2006 (effective March 7, 2007) and the revisions were included in the permit. Note that these provisions are state-only enforceable until approved by EPA into Colorado's state implementation plan (SIP).
- Replaced the reference to "upset" in Condition 5 (emergency provisions) and 21 (prompt deviation reporting) with "malfunction".
- General Condition No. 21 (prompt deviation reporting) was revised to include the definition of prompt in 40 CFR Part 71.
- Replaced the phrase "enhanced monitoring" with "compliance assurance monitoring" in General Condition No. 22.d.

Appendices

- The following changes were made to the insignificant activity list in Appendix A.
 - The Division revised the exemption description for solvent cold cleaners and venting of natural gas and leaks to state that this exempt applies because actual emissions are less than 1 tpy of VOC.
 - The Division removed the gasoline storage tank from the list and included it in Section II of the permit.
- Appendices B and C were replaced with the latest version. In addition the gasoline storage tank was added to the tables in appendices B and C.
- EPA's mailing address was revised (Appendix D). Removed the Acid Rain addresses in Appendix D, since annual certification is no longer required and submittal of quarterly reports/certifications is done electronically.